

**Applicant:** Zahoransky et al.  
**Application No.:** Not Yet Known

39. (Amended) An injection molding machine in accordance with Claim 8, characterized in that the entry of the additive feed (10) at the distributor channel is designed as an annular opening.

40. (Amended) An injection molding machine in accordance with Claim 8, characterized in that the additive feed (10) includes a feed line (11), a material propelling means, which is preferably formed by a pump (12) as well as an additive storage container (13).

41. (Amended) An injection molding machine in accordance with Claim 8, characterized in that the additive includes at least one of the following: color (8), preferably in liquid form, granulates, powder, metal platelets, protective material, reinforcing material, mold release means, chemically active additives such as foam agents for cellular products, hardeners, softeners and the like.

42. (Amended) An injection molding machine in accordance with one Claim 8, characterized in that the mixing arrangement comprises a first layer (192) with a half (152) of a distributor or conveyance channel section (150) and a second layer (191) with another half (153) of the distributor or conveyance channel section (150), and the mixer arrangement includes a mixer (450) located between the first and second layers (192, 191), and the first and second layers (192, 191) are connected together.

#### REMARKS

The foregoing preliminary amendment is being submitted in order to remove the improper multiple dependencies from the claims as provided by the Annexes to the International Preliminary Examination Report, and to add the required headings to the specification. The Substitute Specification provided herewith incorporates these

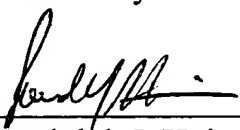
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changes, and the paragraph numbers of the specification have been renumbered based on the changes to the specification. No new material has been added to the application by these amendments.

Prompt examination based on the Substitute Specification is therefore requested.

Respectfully submitted,

Zahoransky et al.

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**MARKED-UP CLAIMS PURSUANT TO 37 CFR §1.121(c)(1)(ii)**

3. (Amended) A process in accordance with [one of the Claims 1 or 2] Claim 1, characterized in that the additive material (8) is introduced in a plurality of locations of the distribution arrangement.
4. (Amended) A process in accordance with [one of the Claims 1 to 3] Claim 1, characterized in that the additive material (8) is metered to the injection material by dosages.
5. (Amended) A process in accordance with [one of the Claims 1 to 4] Claim 1, characterized in that the introduction of the additive (8) is blocked during a post-pressure phase of the injection molding process.
6. (Amended) A process in accordance with [one of the Claims 1 to 5] Claim 1, characterized in that the additive (8) is introduced to the injection material at approximately the same temperature as that of the injection material.
8. (Amended) An injection molding machine for the manufacture of injection molded articles, in particular of toothbrush bodies, with an injection molding die (1) and an injection unit (2) mold cavities (5), a distributor channel arrangement (4) with distributor or conveyance channels (150) that carry injection material between the injection unit (2) and individual mold cavities (5) and at least one mixing apparatus (450) for the injection material, and at least one connection for an additive line, [in particular for carrying out the process in accordance with one of claims 1 to 7, characterized in that] wherein the mixing apparatus and the additive line are integrated into the distributor channel arrangement (4, 4a, 100), and  
that the mixing apparatus is part of the distributor or conveyance channels (150) of the distributor arrangement (4) and that the additive feed(s) for the additive (8) is (are) connected to the channel main distributor (6) or the channel subdistributor (14) connected to the injection unit (2) and/or in a nozzle connected to the mold cavity.
10. (Amended) An injection molding machine in accordance with [one of the Claims 8 or 9] Claim 8, characterized in that the feed (10) for the additive material (8) can be closed [, preferably by means of shutoff valves (15)].
11. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 10] Claim 8, characterized in that the shutoff valve (15) is designed as a dosage valve for the additive material (8).

12. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 11] Claim 8, characterized in that in a case of a plurality of line connections for additives (8), at least one is connected directly to a mold cavity (5).

13. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 12] Claim 8, characterized in that the mixing apparatus includes at least one mixing chamber (17) formed by a cross-sectional change, preferably by a cross-sectional expansion.

14. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 13] Claim 8, characterized in that a hot channel distributor (100) is provided for handling of melts (101), which, before injection into the mold cavities have been mixed with at least one additive material, and the hot channel distributor (100) includes a melt channel (150) arrangement, in which at least one feed line section (151) is provided for delivery of the additive material (102), an additive material line, with a terminating outlet into the feed line section (151), at least one mixer (300) aligned in a direction of flow, and in that the mixer (300) is formed as a mixing section which includes at least two sections (301, 302), the axes of which are not aligned to coincide with one another.

17. (Amended) An injection molding machine in accordance with [one of the Claims 15 or 16] Claim 15, characterized in that by the use of a plurality of mixers (300) the length and the cross-section of the single mixing sections are made equal for the attainment of balanced flow ratios.

18. (Amended) An injection molding machine in accordance with [one of the Claims 14 to 17] Claim 14, characterized in that the exit opening (303) of the first section (301) is connected to the entry opening (304) of the second section (302) of the two sections (301, 302), by a flow direction reversal fitting (305) of the melt channel (150), wherein the direction of flow in the first section (301) is essentially opposite to the direction of flow in the second section (302).

22. (Amended) An injection molding machine in accordance with [one of the foregoing Claims] Claim 18, characterized in that the first and the second sections (301, 302) are respectively provided as static mixers (450).

26. (Amended) An injection molding machine in accordance with Claim 24 [or 25], characterized in that the adjacent edges (453, 454) of neighboring deflection plates (451, 452) are connected together by spot welding.

34. (Amended) An injection molding machine in accordance with Claim 32 [or 33], characterized in that the needle valve (203) travel is limited to 0.1 to 0.01 mm.

35. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 34] Claim 8, characterized in that within the distribution channel, a separating distance to the entry point of an additive feed (10) from a mold cavity, is determined in consideration of a volume of the article to be produced by injection molding and by an anticipated volume of additive required for the article.

36. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 35] Claim 8, characterized in that a temperature adjustment apparatus is provided for the additive 8, preferably by means of a heating installation placed at the additive material feed (10).

37. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 36] Claim 8, characterized in that one or more distributor channel branches include one or more additive material feeds (10).

38. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 37] Claim 8, characterized in that a plurality of additive feeds (10) are provided in a channel leading to the mold cavities (5) in the direction of flow, and in that the additive feeds (10) can be optionally closed.

39. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 38] Claim 8, characterized in that the entry of the additive feed (10) at the distributor channel is designed as an annular opening.

40. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 39] Claim 8, characterized in that the additive feed (10) includes a feed line (11), a material propelling means, which is preferably formed by a pump (12) as well as an additive storage container (13).

41. (Amended) An injection molding machine in accordance with [one of the Claims 8 to 40] Claim 8, characterized in that the additive includes at least one of the following: color (8), preferably in liquid form, granulates, powder, metal platelets, protective material, reinforcing material, mold release means, chemically active additives such as foam agents for cellular products, hardeners, softeners and the like.

42. (Amended) An injection molding machine in accordance with [one of the claims 8-41] Claim 8, characterized in that the mixing arrangement comprises a first layer (192)

**Applicant:** Zahoransky et al.  
**Application No.:** Not Yet Known

with a half (152) of a distributor or conveyance channel section (150) and a second layer (191) with another half (153) of the distributor or conveyance channel section (150), and the mixer arrangement includes a mixer (450) located between the first and second layers (192, 191), and the first and second layers (192, 191) are connected together.

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